# Environmental Education Update January 2008 Professional Development

#### American Museum of Natural History's Graduate Science Courses - Online

Deepen your knowledge with Seminars on Science courses from the American Museum of Natural History. Spring Session 1 courses (including The Ocean System, Evolution, Earth: Inside and Out, and more) run January 28-March 9, 2008; the deadline for registration is January 14, 2008. Spring 2 courses (including The Ocean System, The Diversity of Fishes, and more) run March 24-May 4, 2008; the registration deadline is March 10, 2008. <a href="http://www.amnh.org/learn/">http://www.amnh.org/learn/</a>

#### **Climate Discovery Online Courses for Educators**

This National Center for Atmospheric Research (NCAR) online course series for middle and high school science teachers combines geoscience content, current climate research, easy to implement hands-on activities, and group discussion.

- · CD 101 Introduction to Earth's Climate: January 11 February 22, 2008
- · CD 102 Earth System Science: A Climate Change Perspective: January 18 February 29, 2008
- · CD 103 Understanding Climate Change Today: April 4 May 16, 2008

http://eelink.net/cgi-bin/ee-link/newclick/2245670

#### **Earth Expeditions**

The Cincinnati Zoo and Botanical Garden, in partnership with Miami University's Project Dragonfly, offers Earth Expeditions, tuition-free graduate courses open to educators from all disciplines and settings. Different courses and field expeditions are offered and offer inquiry-driven, community-based learning for the benefit of ecological communities, student achievement, and global understanding. The deadline for application is January 28, 2008. <a href="http://www.earthexpeditions.org/">http://www.earthexpeditions.org/</a>

## The Educated Citizen and Public Health Curriculum Development Institute ~ Virginia July 14-15, 2008 ~ Crystal City, Virginia Application Deadline: February 27, 2008

The Association of American Colleges and Universities, in partnership with the Association for Prevention Teaching and Research, announces the next phase of The Educated Citizen and Public Health, a project designed to help faculty members create coherent undergraduate curricula that engage students with the world's major questions through the lens of public health.http://eelink.net/cgi-bin/ee-link/newclick/2245680

Free Astronomy Workshops For EE Educators ~ Online January 10 - February 7, 2008, and February 21 - March 13, 2008

Apply now for Astronomy From the Ground Up's next free online workshop for science, nature center, and museum educators! Thanks to support from the National Science Foundation, the workshop is completely free

for participating educators. Training is through e-mail, videochat, and telephone. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245674">http://eelink.net/cgi-bin/ee-link/newclick/2245674</a>

#### M.S. in Ecological Teaching and Learning at Lesley University

This 32-credit master's degree program brings educators from schools, museums, nature centers, and alternative teaching settings together in learning communities to develop and deepen their capacity to integrate ecological concepts into the curriculum. The program includes two field-study summers and three distance learning school-year semesters. For more information visit the Web site or contact <a href="mailto:info@lesley.edu">info@lesley.edu</a> <a href="mailto:http://eelink.net/cgi-bin/ee-link/newclick/2245676">http://eelink.net/cgi-bin/ee-link/newclick/2245676</a>

#### **NOAA's Teacher at Sea Program**

The National Oceanic and Atmospheric Administration's Teacher at Sea program gives K-16 teachers an expenses-paid, first-hand experience of science and life at sea on board one of three main research vessels: fisheries, oceanographic/coastal, and hydrographic. Cruises range in length from one week to one month. Click here for more information.

#### North American Association for Environmental Education Conference

The 37th North American Association for Environmental Education (NAAEE) Annual Conference, October 15–18, 2008 in Wichita, Kansas, has released its call for proposals. Conference strands include Conservation Education; Energy Education; Environmental Justice, Environmental Health, and Climate Change; and more. The deadline for submission is January 15, 2008. http://www.naaee.org/conference/2008-conference

## Winter Ecological Field Studies ~ Online February 4 - April 25, 2008

This Montana State University Environmental Science Education: Winter Ecological Field Studies course is designed for educators (grades K-14) to learn and practice basic ecological field study techniques and integrate them into their environmental, science, or ecology instruction. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245682">http://eelink.net/cgi-bin/ee-link/newclick/2245682</a>

# **Grants & Scholarships**

#### **Community Action Grants**

The American Association of University Women Educational Foundation advances educational and professional opportunities for women. Topic areas are unrestricted, but should include a clearly defined activity that promotes education and equity for women and girls. One-year Community Action Grants provide seed money for new projects. Two-year grants provide start-up funds for longer-term programs that address the particular needs of the community and develop girls' sense of efficacy through leadership or advocacy opportunities. Grant projects must have direct public impact, be nonpartisan, and take place within the United States or its territories. Hurry – the application deadline is January 15, 2008. http://www.aauw.org/education/fga/fellowships\_grants/community\_action.cfm

#### **Coral Reef Conservation Fund**

The National Fish and Wildlife Foundation is accepting proposals to the Coral Reef Conservation Fund for projects that build public-private partnerships to reduce and prevent degradation of coral reefs. Projects should target key threats to reef habitats in coastal watersheds, reef, or associated marine habitats. The deadline for pre-proposal application is February 20, 2008. http://www.nfwf.org/coralreef

#### **Environmental Education and Training Partnership Scholarships**

Environmental Education and Training Partnership (EETAP) offers scholarships to community and state environmental education leaders who are interested in taking either the *Applied Environmental Education* 

Program Evaluation or Fundamentals of Environmental Education online course. Scholarship applications will be reviewed upon receipt and considered until the course enrollment limit is reached. Hurry – the deadlines for application are early January, 2008. http://www.uwsp.edu/natres/eetap/

#### **Hollings Undergraduate Scholarship Program**

Deadline: February 8, 2008

The National Oceanic and Atmospheric Administration (NOAA) is accepting Ernest F. Hollings Scholarship Program applications from students who will have official Junior status in Fall 2008. The Hollings Undergraduate Scholarship program is designed to increase undergraduate training and public understanding, recruit and prepare students for public service careers, and careers as teachers and educators in oceanic and atmospheric science, and to improve scientific and environmental education in the United States. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245654">http://eelink.net/cgi-bin/ee-link/newclick/2245654</a>

#### **National Fishing and Boating Education Grants**

The purpose of the Physh Ed National Fishing and Boating Education Grants initiative is to enable public, private, or charter schools to incorporate quality standards-based fishing and/or boating program activities into their physical education curriculum. The Future Fisherman Foundation invites physical education teachers to apply for these funds to incorporate fishing and boating activities into their classrooms as well as to work collaboratively with other subject areas to integrate fishing and boating activities into the broader school curriculum. The deadline for application is January 21, 2008. http://futurefisherman.org/programs/pegrants\_application.php

#### Scholarships for High Achievers

Deadline: March 26, 2008

The Davidson Institute for Talent Development is offering high achieving young people (under age 18) the opportunity to be named as 2008 Davidson Fellows. Scholarships in the amount of \$50,000, \$25,000, or \$10,000 will be awarded to recognize a significant piece of work in the categories of Science, Technology, Mathematics, Music, Literature, Philosophy, or Outside the Box. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245656">http://eelink.net/cgi-bin/ee-link/newclick/2245656</a>

#### **Smaller Learning Communities Program**

The Smaller Learning Communities program awards discretionary grants to local educational agencies to support the implementation of activities to improve student academic achievement in large public high schools with enrollments of 1,000 or more students. Examples include structures such as freshman academies, multigrade academies organized around career interests or other themes, personalization strategies such as mentoring programs, and more. The deadline for the Notice of Intent to Apply is January 10, 2008. http://www.ed.gov/legislation/FedRegister/announcements/2007-4/112607a.html

# **Awards & Contests**

Action for Nature's International Young Eco-Hero Awards - Deadline February 28, 2008 Action for Nature, a non-profit organization that encourages young people around the world to carry out environmental action projects, presents the International Young Eco-Hero Awards to recognize the individual accomplishments of young people ages 8-16 whose personal actions have significantly improved the environment. Cash prizes of up to \$500 each will be awarded. Go to <a href="http://www.actionfornature.org/eco-hero/ecoheroawards.html">http://www.actionfornature.org/eco-hero/ecoheroawards.html</a>.

#### **ARMADA Project - Research and Mentoring Experiences for Teachers**

**Application Deadline: February 4, 2008** 

Submit your application today to this exciting experience that provides K-12 teachers an opportunity to actively participate in ocean, environmental, and polar research and peer mentoring. Chosen Master Teachers (with five or more years of teaching experience) will spend one to three weeks participating in research around the globe. Contact: <a href="mailto:armada@gso.uri.edu">armada@gso.uri.edu</a> or 401-874-6211<a href="mailto:http://eelink.net/cgi-bin/ee-link/newclick/2245660">http://eelink.net/cgi-bin/ee-link/newclick/2245660</a>

### Call for Young Eco Hero Nominations and Applications Deadline: February 28, 2008

Calling all Young Eco Heroes! Action For Nature has a juried annual contest. Cash prizes and other gifts are awarded to young people (ages 8-16), who have initiated and achieved an outstanding environmental success, and whose efforts will inspire others. Nominations are encouraged. Guidelines and application form available at: http://eelink.net/cgi-bin/ee-link/newclick/2245652

#### **Canon Envirothon**

The Canon Envirothon, July 28-August 3, 2008 in Flagstaff, Arizona, is an annual competition in which winning state and provincial teams compete for recognition and scholarships by demonstrating their knowledge of environmental science and natural resource management. The 2008 topic is Recreational Impacts on Natural Resources, with the learning objective for students to analyze long term and short term environmental, social, and economic factors relative to recreational impacts upon natural resources and their management. Check the website for links to your state competitions and materials.

www.envirothon.org/competition/Canon2008/index.php

#### **DuPont Challenge**

The DuPont Challenge offers students in grades 7-12 the chance to write an essay on a scientific discovery, theory, event, or technological application that has captured their interest. The deadline for entry is January 28, 2008. <a href="http://www.thechallenge.dupont.com/">http://www.thechallenge.dupont.com/</a>

#### Egg Drop 2008

Saturday, March 15, 2008, Nauticus in Norfolk

Hosted by the locals sections of American Society of Mechanical Engineers (ASME) and American Institute of Aeronautics and Astronautics (AIAA). Join the fun at the 2007 ASME/AIAA Egg Drop Design Competition! Designed to promote engineering and science for students, this competition is open to **all ages**.

Participants are asked to build a device to protect an egg from a second story (approximately 20 feet high) and third story (approximately 40 feet high) drop to keep it from going splat! The lightest device that comes closest to the target while protecting the egg wins! Eggs will be supplied at the contest. Participation is FREE! PRIZES for winners in each age group! For official rules and more information, visit: <a href="http://sections.asme.org/easternva">http://sections.asme.org/easternva</a> or <a href="http://sections.asme.org/easternva">http://sections.asme.org/easternva</a>

#### National Gardening Association 2008 Mantis Awards - Deadline March 1, 2008

The National Gardening Association Mantis Awards provide in-kind grants to educational projects that actively engage kids in gardens and improve the quality of life for their communities. For more information go to <a href="http://www.kidsgardening.com/grants/mantis-criteria.asp">http://www.kidsgardening.com/grants/mantis-criteria.asp</a>

## 2008 Volvo Adventure Awards Deadline: January 31, 2008

In collaboration with the United Nations Environmental Programme (UNEP) the Volvo Adventure Award rewards young people creating their own environmental projects. There are two competitions for the 2008 awards. The Adventure Award is for youth, ages 13-16, working in groups of two to five. The second competition is the Great Big Bob the Bunny Cartoon contest for youth under the age of 13, to create a cartoon picture using Bob the bunny. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245650">http://eelink.net/cgi-bin/ee-link/newclick/2245650</a>

#### **Wet Your Appetite - Cuisine for Critters Recipe Contest**

World Wetlands Day is February 2, 2008. To celebrate, Environmental Concern Inc. introduces a creative writing competition with a twist. Students in grades 8 -12 in the U.S. and its

territories are challenged to write a creative wetland recipe. The recipe will be written for a specific wetland organism living in one of the twenty-two U.S. Ramsar Wetlands of International Importance sites. Twenty-two winners will be chosen, one for each wetland, and their recipes compiled into the 1st annual *Wet Your Appetite: Cuisine for Critters Cookbook*. Winners will receive two copies of the book, one to keep and one to share with their school. The deadline for application is February 8, 2008. http://www.wetland.org/education\_wetland\_day.htm

#### **UNEP Children's Painting Competition**

The United Nations Environment Programme's International Children's Painting Competition invites children ages 6-14 to submit paintings on the theme "Climate Change: Actions we can take now to reduce our negative impact." The paintings can focus on concrete actions such as using renewable energy, introducing energy-saving light bulbs at home, etc. Competition runs until January 15, 2008. Click here for competition quidelines.

# **Events & Requests**

#### Focus The Nation "Teach-in"

Focus the Nation, a national teach-in on January 31, 2008, is designed to engage faculty and students across the country, with a focus on global warming solutions, for participants to get educated, organize, engage civic leaders, vote on solutions, and act. The website includes links to educational materials and more. <a href="http://www.focusthenation.org/nationalteachin.php">http://www.focusthenation.org/nationalteachin.php</a>

#### **Internet Scout Project Survey for Social Sciences**

Internet Scout Project offers a variety of research and development projects related to connecting educators to authoritative and helpful online resources. The newest area of interest centers on online resources for teaching and research in the Social Sciences. They have created a brief online survey about what you feel is most important as they move forward with this project; opinions from those whose primary field of study or teaching is in the Social Sciences are critical. <a href="http://scout.wisc.edu/socscisurvey/">http://scout.wisc.edu/socscisurvey/</a>

#### National Sustainability Education Standards Available for Comment

The United Nations has declared 2005-2014 the Decade of Education for Sustainable Development. The US response to the decade is being spearheaded by the US Partnership for Education for Sustainable Development. The K-12 sector team of the US Partnership, with input from educators in public, private, and pre-service fields, has generated a draft set of national sustainability education standards and are **seeking feedback on these standards**. Contact <u>Gilda Wheeler</u> or <u>Kim Rakow Bernier</u> for more information. Download the draft sustainability education standards, then click on "submit your comments" to provide feedback online. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245684">http://eelink.net/cgi-bin/ee-link/newclick/2245684</a>

## Track Spring's Journey North: Migrations, Mystery Schools, Climate, More 2008 Spring projects begin February 1st

Teachers and students in K-12 classrooms are invited to participate this spring in Journey North's 15th annual global study of wildlife migration and seasonal change. A free Internet-based citizen science project, Journey North enables students in 11,000 schools to watch the wave of spring as it unfolds. They share their local observations with classmates across North America and beyond, and look for patterns on real-time maps. Each Journey North study features many entry points and resources that address learning standards. <a href="https://eelink.net/cgi-bin/ee-link/newclick/2245700">https://eelink.net/cgi-bin/ee-link/newclick/2245700</a>

## **Curriculum Tools**

#### **American Planning Association Essay Contest**

The American Planning Association is encouraging U.S. high school students to address some of the critical planning issues in their own communities through a national essay contest: Greening Streets and Neighborhoods. The winning writer will receive a \$5,000 college scholarship. Essays are due January 15, 2008. Click here for more information.

#### **Avian Index**

Teachers, students, and others can find useful resources through the Avian Index, from Environment for the Americas. Curriculum, workshops, books, speaker's lists, and more, are available through this easy-to-search database. www.birdig.com/learn/Resource Dir/index.php#

#### **Build Green Schools**

The United States Green Building Council has created a new website to promote the building of schools that are healthy for students, teachers, and the environment. Build Green Schools provides information on topics such as "Healthy Places to Learn" and "Benefits of Green Schools." The website also has a resource library that displays project profiles. Click here to access the Build Green Schools website.

#### **Coastal Land Cover and Change Maps**

Coastal land cover and change maps, circa 1996-2001, are available for the conterminous U.S. from NOAA's Coastal Services Center. In addition, land cover updates for 2006 and their corresponding change maps are available for the Gulf Coast region and parts of the Northeast. <a href="http://www.csc.noaa.gov/crs/lca/locateftp.html">http://www.csc.noaa.gov/crs/lca/locateftp.html</a>

#### **Coral Discovery Kits**

NOAA offers downloadable lesson plans to teach about corals at the high school level. These lessons focus on the biology of coral reefs, the benefits they provide to humans, major threats to coral reefs today, and how satellites are used to monitor and maintain the health of reefs. The resources include an online tutorial, an educational roadmap to resources, and formal lesson plans.

http://oceanservice.noaa.gov/education/kits/corals/welcome.html

#### **Data Explorer**

Online access to NOAA's National Ocean Service spatial data collections, such as nautical charts, coastal maps, environmental monitoring records, and more, is available through this website. The material can be searched by geographic area, keyword, or topic. <a href="http://nosdataexplorer.noaa.gov/nosdataexplorer/">http://nosdataexplorer.noaa.gov/nosdataexplorer/</a>

#### The DNA Files III Now on NPR

The DNA Files III documentaries and features explore the science of genetics and its ethical, social, and legal implications, and National Public Radio is now broadcasting this series nationwide. The Web site offers background information as well as podcasts in MP3 format. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245698">http://eelink.net/cgi-bin/ee-link/newclick/2245698</a>

#### Earth & Sky International Polar Year Resources

On this website, Earth & Sky editors have compiled radio programs, podcasts, and a photo gallery with content related to polar science to help celebrate the International Polar Year. They will continue to update this website with relevant interviews and sessions with polar scientists. <a href="http://www.earthsky.org/article/international-polar-year">http://www.earthsky.org/article/international-polar-year</a>

#### **ECOBASURA**

ECOBASURA is a board game that teaches recycling, raw material recovery, and the profitable reduction of wastes. Created in Colombia and endorsed by its Educational Ministry, it is adaptable to all languages and cultures. The website is available in English or Spanish. Click here to access ECOBASURA.

#### **Environmental Health Resources**

National Environmental Education Week is continuing to expand their online curricula library and has just added links to many lessons on environmental health. Curricula and lesson plans from many sources are easily accessible from this website. Materials range from water and air quality through the spread of infectious diseases to societal issues and much more. While on the website, check out the expanded listing of lessons and other materials in the library, including lessons on climate change and energy, green reading, newsletters, and more.www.eeweek.org/resources/environmental\_health\_curricula.htm

#### **Estuaries SciGuide**

The Estuaries SciGuide was developed collaboratively by NOAA's National Estuarine Research Reserve System (NERRS) and NSTA. As a strictly on-line resource, there are no printed materials and each guide can be accessed from any computer with internet access. The Estuaries SciGuide can help your students discover why estuarine environments are so unique; how they interact with the surrounding environment; the effects humans and estuaries have on each other; and more. The SciGuide can save you time by providing resources that have been pre-evaluated and aligned to the National Science Education Standards. The Estuaries SciGuide is free; registration is required. http://learningcenter.nsta.org/product\_detail.aspx?id=10.2505/5/SG-21

#### **Explorations Into Water Teaching Curriculum**

Rain Bird's *Explorations Into Water Teaching Curriculum* is an educational tool providing teachers and parents with lesson plans and related course work geared to students in grades 3-6. This downloadable elementary curriculum motivates students to think about the part each person plays and the actions they can take in using and conserving water, through hands-on outdoor activities and classroom demonstrations. <a href="http://www.rainbird.com/iuow/community/curriculum.htm">http://www.rainbird.com/iuow/community/curriculum.htm</a>

#### **Galveston Bay Information Center Resources**

The Galveston Bay Information Center and the Galveston Bay Estuary Program have teamed up to provide resources you can use to teach the science of the bay area in your classroom. The website offers curriculum focusing on oceans, estuaries, and bays. The Resources for Teachers webpage contains free resource materials for use in your classroom including links to locally designed curriculum, classroom presentations, links to local field trip opportunities, and more. Additional links bring you to science sites of interest and other websites. You can also order free hard copies of books, videos, curricula, and other resources. http://gbic.tamug.edu/

#### A Guide to Desert & Dryland Restoration

By David A. Bainbridge. Published by Island Press. With almost a billion people around the world affected by dryland degradation and

desertification, *A Guide to Desert & Dryland Restoration* offers practical, field-tested solutions to this critical problem. This book focuses on restoring arid regions, exploring the causes of desertification and land abuse, the history of dryland decline, and describes the processes and procedures needed to evaluate, plan, implement, and monitor desert restoration projects. Fully illustrated with excellent photos and illustrations and references for further information.

This book is designed to be used as a semester-long class with material suited for high school or college. Alternative irrigation systems, seed collection, and restoration planning could be used at any level for class activities. Selected chapter powerpoints are available free online. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245688">http://eelink.net/cgi-bin/ee-link/newclick/2245688</a>

#### **Hidden Depths: Atlas of the Oceans**

Explore the oceans through unique photographs from the ocean depths and state-of-the-art maps, with expert contribution from NOAA and the Smithsonian Institute. Previously unpublished 3D views and images of the oceans developed by NOAA will help reveal the amazing structure of the oceans. The impact the ocean has on the land we live is evident from the topical issues presented, including hurricanes, pollution, tsunamis, and sea level rise. Man's history with the sea is also outlined from old sea charts and wrecks to the latest in submersible technology, satellite imagery and echo sounding. Check out the YouTube overview.http://uk.youtube.com/watch?v=4SkSI1m-By8

#### ide@s

The Interactive Dialogue With Educators Across the State (ide@s) website from the University of Wisconsin Extension program offers educator resources that have been aligned to the state education standards and are readily available on the Internet. The materials are identified by grade, subject, and standard, and can be searched for by key word. The website brings together teacher-reviewed and tested lessons, interactive tools, video, and other resources which can be used in the classroom or for curriculum development purposes. The subject list includes environmental education, science, service-learning, and more.http://www.ideas.wisconsin.edu/

#### Innovative New EE Web Site from MAEOE

This new Maryland Association for Environmental & Outdoor Education (MAEOE) Web site features a user-friendly design and comprehensive information on the MAEOE conference, Maryland Green Schools, Schoolyard Habitat, and more. The new Schoolyard Habitat section features inspiring before & after photos and information on how to successfully choose, fund, implement, utilize, and maintain hundreds of habitat projects and avoid common obstacles. In addition, visit the interactive map featuring Maryland Green Schools & Centers, and (coming soon) Model Schoolyard Habitats. http://eelink.net/cgi-bin/ee-link/newclick/2245690

#### International Year of the Reef

The International Coral Reef Initiative (ICRI) designated 2008 as the International Year of the Reef (IYOR 2008). The initiative hopes to strengthen awareness about the ecological, economic, social, and cultural value of coral reefs and associated ecosystems; improve understanding of the critical threats to coral reefs and generate both practical and innovative solutions to reduce these threats; and generate urgent action at all levels to develop and implement effective management strategies for conservation and sustainable use of these ecosystems. The website includes background information about coral reefs, a calendar, news, links to educational materials, and much more. And check out other coral materials: http://www.iyor.org/

#### IPY in the Classroom

In support of the International Polar Year, NASA scientists are participating in field expeditions to Earth's polar areas and conducting additional research focused on the poles of Earth and other planets and moons. This web page offers convenient links to a variety of NASA and NASA-sponsored projects with IPY-related classroom activities and resources.

http://www.nasa.gov/audience/foreducators/k-4/features/F IPY in the Classroom.html

#### The Island Institute

Since 1983, the Island Institute has employed a wide range of individuals, including photographers, artists, policy experts, and others, all in the name of maintaining the viability of the fifteen year-round island communities in the Gulf of Maine. Website resources include information about fellowship opportunities, working waterfront initiatives, links to initiatives of interest, educational resources, and much more. <a href="http://www.islandinstitute.org/">http://www.islandinstitute.org/</a>

#### **Landsat Image Mosaic of Antarctica**

A team of researchers from NASA, the U.S. Geological Survey, the National Science Foundation, and the British Antarctic Survey has created a new map of Antarctica, Landsat Image Mosaic of Antarctica (LIMA), which offers geographically accurate, true-color, high-resolution views. The map

was created from more than a thousand images from three years of Landsat satellite observations. The website includes links to a flying tour of the McMurdo area, educational materials, eight downloadable versions of the mosaic, and more. http://lima.nasa.gov

#### **LIFE Program**

Learning in Florida's Environment (LIFE) is an initiative to establish a series of field-based, environmental-science, education programs around Florida. Each program will represent a partnership between the Florida Department of Environmental Protection and a local school district. The goal of each program site is increased student achievement and teacher professional development in science. The website offers news, contact information, and more. <a href="http://www.dep.state.fl.us/secretary/ed/">http://www.dep.state.fl.us/secretary/ed/</a>

#### Magic Porthole Coral Reef Playing Cards

In advance of the International Year of the Reef, Horizon International has launched its Magic Porthole coral reef playing cards with photographic mirror-images of coral reef creatures. One version of the cards has all the same backs so they can be used to play card games, while a second version has backs with information about the species so they can be used for memory games and flash cards. The website includes a variety of resources, news, and more. <a href="http://www.magicporthole.org/">http://www.magicporthole.org/</a>

#### **New Marine Education Guide**

Treasures in the Sea: Our Bahamian Marine Resources provides educators with scientific information and engaging, hands-on activities. Visit the Web site to download the book or sections of the book, link to resources related to the activities, find out about training workshops in the Bahamas, and share teaching ideas and experiences in marine conservation education. Developed by the American Museum of Natural History and Bahamian partners. <a href="http://eelink.net/cgi-bin/ee-link/newclick/2245694">http://eelink.net/cgi-bin/ee-link/newclick/2245694</a>

#### **Oceanus**

Oceanus, the oceanography magazine produced by Woods Hole Oceanographic Institution (WHOI), continues to publish a free version on-line. The magazine explores ocean research, engineering, and education at WHOI. You can read the current issue or search retrieve articles by topic, including ocean policy, resources, sound in the ocean, and much more. The website includes information about research, interviews, fast-loading multimedia, and more. <a href="http://oceanusmag.whoi.edu">http://oceanusmag.whoi.edu</a>

#### Papahānaumokuākea Expedition 2007

From August through September of 2007, an expedition with archaeologists from the Maritime Heritage Program, the Pacific Islands Region, and the Papahānaumokuākea Marine National Monument contributed to our understanding of maritime heritage resources in the Northwestern Hawaiian Islands. Scientists conducted non-invasive surveys on shipwreck sites at Midway Atoll, Pearl and Hermes Atoll, and French Frigate Shoals in the Papahānaumokuākea Marine National Monument. The archaeology team's goal was to locate new wreck sites and continue the documentation of known sites. The website offers information about the mission and the wrecks. <a href="http://sanctuaries.noaa.gov/maritime/welcome.html">http://sanctuaries.noaa.gov/maritime/welcome.html</a>

#### Peppy's Coral Kingdom

This children's book is aimed at educating students in Grades 1-5 about threats to coral reefs, with a heavy emphasis on coral disease and anthropogenic stressors. The book was created by Nancy Lucas in consultation with scientists from the Marine Resources Center at Fort Johnson. The website includes links to several example pages, along with ordering information. <a href="http://www.thirdfloorcell.com/peppy.html">http://www.thirdfloorcell.com/peppy.html</a>

#### **Publications Catalog – University of Delaware Sea Grant**

This online catalog is designed to inform browsers of the wealth of publications and videos available from the University of Delaware Sea Grant College Program. Categories include Children's Activities, Hot Topic Fact Sheets, On-Line Expeditions, Videos, and more. Some are available for free downloading, others may be ordered. <a href="http://www.ocean.udel.edu/seagrant/publications/pubcatalog.html">http://www.ocean.udel.edu/seagrant/publications/pubcatalog.html</a>

#### **Project FLOW**

New curriculum content highlighting Great Lakes fisheries is now available online via Michigan Sea Grant's website, Fisheries Learning on the Web (FLOW). Four new and revised classroom lessons and hands-on activities help educators and students observe and identify Great Lakes fish, understand the fundamentals of fish habitat and life cycles, and learn how scientists monitor the movement of fish populations. All lessons meet state and national science education standards and benchmarks and are designed for students in grades 4-8. Click here to access FLOW.

#### **Science Animations**

Created by staff at North Harris Community College, this website offers animations in a number of topics, including plants, ecology, geology, and more. Each section contains links to animations from various institutions.http://science.nhmccd.edu/biol/animatio.htm#ecology

#### Science Daily

Science Daily is one of the leading online magazines and web portals devoted to science, technology, and medicine. As a free service, Science Daily brings readers breaking news about the latest discoveries and hottest research projects in everything from astrophysics to zoology. Click here to access Science Daily.

#### **SECORE Website**

Focusing on sexual reproduction of reefbuilding corals around the world, SECORE (SExual COral REproduction) provides tools for live stock management in public aquaria. They promote cooperation between top scientists in coral reproduction biology and related fields. http://www.secore.org/

#### **Student Opportunities Web Site**

This new National Oceanic and Atmospheric Administration (NOAA) Student Opportunities Web site provides information about NOAA educational opportunities, scholarships, internships, and fellowships. The site also provides student opportunities by geographic location, underrepresented communities, and opportunities specific to students with disabilities. http://eelink.net/cgi-bin/ee-link/newclick/2245696

#### Reefs on the Web

Reefs on the Web is a collection of links to websites on coral reefs and reef-related resources as a result of research conducted for an article on coral reef websites. Still under construction, it currently hosts listings of publications, governmental and non-government sponsored websites, and a section on monitoring and surveys. While the Communication & Education link still remains to be populated, this website offers a quick source of useful information for students and teachers. http://barbiemail.googlepages.com/home

#### RiverTales Come to Your School

Hands-on 45-minute classroom-based, environment and river-themed activities for elementary school students can come to your school through March 2008. Each program is adapted for grade levels ranging from K-6. Click below for details and titles. Click here for information: <a href="RiverQuest RiverTales.">RiverQuest RiverTales.</a>

#### Volunteers and Invasive Plants: Learning and Lending a Hand

This e-learning website from the U.S. Fish and Wildlife Service provides science-based, introductory information about invasive plants. The five self-study modules address the purpose and history of the National Wildlife Refuge System, how volunteers help in invasive plant management, how refuges manage invasive plants, and tips for community outreach. The program is part of a larger U.S. Fish & Wildlife Service program in conjunction with partners to engage volunteers in managing invasive species on National Wildlife Refuges. http://www.fws.gov/invasives/volunteersTrainingModule/index.html

#### **Worksheet Library**

This website features printable worksheets for teachers of grades K-6. The worksheets are aligned to National Standards and can be searched by grade level, subject, or standards. Some worksheets are free for downloading; others are available to members. <a href="http://www.worksheetlibrary.com/">http://www.worksheetlibrary.com/</a>